COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON TRANSPORT AND REGIONAL SERVICES

Reference: Train illumination

(Committee Briefing)

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STANDING COMMITTEE ON TRANSPORT AND REGIONAL SERVICES

Wednesday, 3 March 2004

Members: Mr Neville *(Chair)*, Mr Andren, Mr Gibbons, Mr Haase, Ms Ley, Mr McArthur, Mr Mossfield, Ms O'Byrne, Mr Schultz and Mr Secker

Members in attendance: Mr Andren, Mr Gibbons, Mr Haase, Ms Ley, Mr McArthur, Mr Neville, Ms O'Byrne, Mr Secker and Mr Schultz

Reference:

Committee briefing: Train illumination

WITNESSES

Committee met at 9.36 a.m.

FILOR, Mr William Christopher, Deputy Director, Surface Safety, Australian Transport Safety Bureau

CHAIR—In welcoming you here this morning, Mr Filor, I want to brief you that we are not sure whether or not we are going to do a formal inquiry into the issue of train illumination. The general view of the committee is that we might, so we have asked *Hansard* to produce a transcript of proceedings and I will extend the normal caution to you as the evidence we take this morning could become part of an official record. We are not going to place you under oath, but we ask you to recognise that these are proceedings of the parliament and, as such, require the respect that would normally attend to the parliament itself. The giving of false or misleading evidence is a serious matter in those circumstances. Having said that, you are most welcome.

With regard to this inquiry, we have had an impassioned plea from a group in Western Australia that we should examine this. As I said, so far we are not examining it under any particular reference from the minister or via annual report powers, but we think that the issue of train illumination is one that the committee should pursue. The inquiry was driven emotively, I suppose, in the first instance, but now we want to put some reality checks on it. We want to know what your view is on the matter: whether it is financially feasible or whether we are perhaps going up a dry creek bed, so to speak. Some of the notes that we have got from you and others tend to make us think that it is not the way to go, but we would be interested to hear your views. Perhaps you might give us an overview, and then we will break into questions from my colleagues.

Mr Filor—Certainly. First of all, may I apologise: I understood that I was going to be appearing today with Peter Cairney, who has produced a report for the ATSB. My understanding was that he was going to take most of the running.

CHAIR—He will appear at a subsequent hearing.

Mr Filor—I can bring to the committee a limited direct knowledge of railway level crossing accidents. In the last two years I have investigated three level crossing accidents, all of them involving fatalities. While I would not claim that those three could be taken as representative of all accidents, they have given me some insights.

CHAIR—Does that include the one at Salisbury?

Mr Filor—Yes, Salisbury was one of them.

CHAIR—If you are referring to that one, most of the committee have seen that site so they will be familiar with it.

Mr Filor—Of the other two, one was at Benalla a week or two weeks before the Salisbury accident and it involved a passive level crossing—Salisbury was an active level crossing. The other one was in May last year, at Aloomba, outside Cairns, when a child in the back seat was killed when the car drove in front of a train. I can rely on these three accidents. I would not claim that they are totally representative, but I think they give a good indication of the way these

accidents happen—and that is the expertise we try to bring: understanding accidents, rather than trying to understand railways or roads per se.

In Australia there are about 6,000 passive crossings—just a few more than that, as I understand it—and about of them are what are called 'active crossings', where there is some form of gate or light, or both.

CHAIR—You might like to explain those two concepts.

Mr Filor—An active crossing is connected to the rail circuitry and, when a train approaches, a warning light and/or barrier will be activated at the crossing. That is something that is active, that is in the face, if you like, of the driver and can in fact put a barrier in front of the driver—although they are usually half-barriers and drivers have been known to go around them. Passive crossings, which are usually in the country, are where the motorist is alerted to the crossing by signage alone, without any activation of lights. So the approach of a train is not signalled in any way. The requirement is effectively for the motorist or road user to stop, look and obey the road rules. In a nutshell, that is active and passive crossings.

In all, there are about 2,300 trains. The issue for this committee, as I understand it, is whether or not these trains can be made more conspicuous in some way. The problem can be boiled down to which part of the train the road vehicle is going to run into. Basically, either the engine hits the road vehicle or the road vehicle drives into the side of the train. Anecdotally—and I think this is confirmed by Mr Cairney's report—accidents in which vehicles are driven into the side of train tend to occur at night. This represents about 30 per cent of railway crossing accidents. Seventy per cent of railway crossing accidents occur during the day and involve cars, lorries or vehicles of some sort being on the crossing and then being hit by the train as it is going through.

CHAIR—In other words, hitting the front of the train.

Mr Filor—Yes. In those instances it is a case of whether or not the locomotive itself is conspicuous enough, whether it has its headlights on, its colouring compared to the background, and those sorts of issues which go to its conspicuity—or its illumination, as I think you are calling it. The sideswipes, where vehicles drive into the side of the train—and again this is anecdotal information from road users whom I have talked to—tend to be at night. They tend to happen particularly on long freight trains where the locomotive can be a kilometre up the track and the end of the train can be a kilometre on the other side. There is just a big black space and they drive into what they think is the crossing.

CHAIR—A coal or an iron ore train, or something like that?

Mr Filor—Something of that nature. Again, there is not a great deal of information on this. It is really a failure to observe. It may have a lot to do with the time of day—the circadian rhythms—especially when accidents happen early in the morning. There is some suggestion that some of them may be attributable to alcohol and that sort of thing. But there does not seem to be any really definitive information which we could put our hand on to give us some indication of what is actually happening.

I think it is important that the average number of fatalities per year on level crossings is four, as I understand it—and I think that is borne out by Mr Cairney's paper—so we are dealing with that order of magnitude of accident. If we split that down, most of those will have occurred by the locomotive hitting the vehicle, rather than the vehicle running into the side, although those have happened.

From the point of view of the three investigations that we have done, Salisbury is not unique, because I know it has certainly happened in the United States. Salisbury was somewhat different in that it was a case of road bottleneck, if you like. The road was blocked ahead, so vehicles actually backed up over the railway line. The gates then closed and, effectively, vehicles were trapped. There is no doubt that the train was seen at some distance, so conspicuity, or illumination, was not an issue. Everybody saw the train coming; hence one of the drivers was able to get out of the car. Unfortunately the bus passengers and driver were not able to get out of the bus for various reasons. So in that case, conspicuity, or illumination, was not an issue.

With regard to other two, I have to be a bit cautious about what I am saying about Benalla, because we still have not issued the report and the coroner has not made any determination, and also about Aloomba. But in both cases it was unawareness, if you like, that the train was actually there. We think in one case, which involved a B-double, it was a little-used line—used about three or four times a week—and the driver just drove across a crossing he was relatively familiar with. In fact, he was a local boy who lived in the area, although his driving job took him slightly distant from it. But he was familiar with the crossing.

CHAIR—Was that day or night?

Mr Filor—That was a daytime crossing accident—it happened in daylight. The train illumination might have been an issue there. The train was an old steam train. It was a heritage type passenger service, sort of a one-off, if you like. And in that case it was not the road vehicle user who was killed; it was the people on the footplate—three people on the footplate were killed.

CHAIR—The footplate of the engine?

Mr Filor—Yes, of the locomotive itself. With regard to the one in Aloomba, it does seem from all the evidence that there had been a distraction for the driver, involving a mobile phone, just previous to approaching the crossing. There is no doubt that the driver stopped at the crossing. There is no doubt that the train was sounding its horn and its lights were on. This happened at about three o'clock in the afternoon. There was no environmental issue with blinding sun at the time, although the sun was out. It just seems a pure case of distraction. The driver went through the motions of stopping and looking, then drove ahead and the train hit the car and killed one of the children that was a passenger in the back. In our experience that is how most of these accidents seem to happen: people are physically present in one place but are mentally aware somewhere else. That seems to be largely the problem, in my experience.

The issue of the speed of the trains was raised quite a lot in Salisbury. Trains cannot stop on a sixpence or even within 200 to 300 metres—it takes a lot to stop them, especially large freight trains. One of the problems—and I think Mr Cairney has described it far more eloquently than I can do here—is the perception of speed and distance. When you see a train in the distance, as it

comes towards you the speed is exponential. The size of the train does not seem to get any bigger for a long time then suddenly it will increase in size and the speed will become apparent, usually too late. It is set out much more eloquently in the Cairney report. Those are the sorts of issues that come out of it.

CHAIR—What is your view on what we should be doing? For example, is there a case for reflective tape?

Mr Filor—I think there is a case for reflective tape on the side of the trains. That is actually called for in something called the 'Draft code of practice for the defined interstate rail network'. At 3.5 it recommends—it is not a requirement—that reflectors be placed strategically along the side of trains. That would seem to be a fairly inexpensive and not too onerous requirement.

The issue of trying to illuminate the locomotive to a greater degree with things like strobe lights has been dealt with by Mr Cairney. The reason I go back to this is that it is an ATSB commissioned report, and there is nothing in that with which I would quarrel, I must say. The issue with things like strobe lights is, I think, that they are not proven. As he says, white strobe lights during the day do not seem terribly effective. Whether a colour would make them more effective I am not sure but, again, I fall back again on the sorts of accidents which we have seen—those three—and also some American National Transportation Safety Board reports on similar accidents: it does seem that people look and do not see.

CHAIR—What about revolving coloured lights, similar to those on ambulances and police cars—say, if we had a particular colour for trains. Perhaps for those longer trains, such as iron ore, coal and wheat trains, there could be one at the front and one at the back, and one in the middle if there was a locomotive in the middle, as there frequently is on those big trains. There could be one for each locomotive and perhaps one at the end of the train. What would you think of that?

Mr Filor—I do not believe it would be a huge impost on a railway company to do that, but I think it would take a lot more research and thought to see whether it would be effective. Again, the cost effectiveness of it is a judgment for others to make. If you introduce something like that, it could only increase the chances of it being seen, but to what degree I am not sure. Again, if people are distracted—as in some of the cases that we have seen and I have read about—and that distraction is such that they are thinking about something else and they are mentally elsewhere, I am not sure what sort of difference that would make. It may make a difference, but I cannot say.

Mr SCHULTZ—The facts that have been presented here are very dramatic and graphic. One of the things that I picked up—and it is in line with the question I was going to ask—is that 83 per cent of the fatalities occur in daylight, which would indicate to me that there is more a need to do something in daylight than at night for a number of reasons. More people travel during daylight than at night. There is reference in the briefing paper that we have about deliberate risk taking. I just raised that particular issue with my parliamentary colleague the member for Farrer in the classic example of five young men who were killed at a level crossing between Albury and Wagga Wagga. I understand that occurred because the driver was trying to beat the train. Leaving that aside, what role does glare or sunlight have in creating accidents in daylight hours? Have you had any experience with that or do you have any comment to make on that? Is that coupled with the geographical location or the positioning of a crossing which compounds the

problem? As a rural driver I drive over crossings on a reasonably regular basis and sometimes the sun hits me in a spot at certain times of the day because of the positioning of that particular crossing. That would indicate to me that that in itself is a very dangerous situation as far as drivers on roads are concerned.

Mr Filor—At certain times of the day there are certainly going to be problems with the position of the sun and issues of glare. It comes down to not just the sun but the cleanliness of the windscreen, so there are all those issues. Quite how you would accommodate that I am not sure. Pure east-west crossings may be avoided—I do not know—but that might not be possible. It depends where the road is, of course. Glare can be a problem, and it is something we always look at. But I do not believe from the literature that I have read—and this is based mostly on an ATSB report on level crossing accidents—that glare is so much an issue. I have dealt with all the drivers of those vehicles in those three accidents and they were familiar—in fact, very familiar—with the crossing, and that may be more to do with it than glare. I am not sure. But certainly with respect to glare, as we all know from driving normally, windscreen cleanliness and also the position of the sun are two critical issues.

Mr GIBBONS—I remember some years ago that all of the engines in the V-Line's rolling stock were painted a very bright fluorescent pink—almost as bright as my colleague's shirt but much more fluorescent—

Mr McARTHUR—Red is good!

Mr GIBBONS—and then I think they changed it back to a more subdued colour. I think they were then silver, which probably would have helped. If the engines were painted in a colour that is designed to be easily seen—like a very fluorescent lime green, similar to the jackets that people who work on roads during the day wear because they are able to be seen and they are also reflective so you can see them at night—and there was some standardisation of colouring for trains across the nation would that help, given that most of the accidents happen during the day?

Mr Filor—My gut feeling is that it would not help that much. It would not be an adverse issue, but I am not sure how positive it would be. The incubation period, if you like, for an accident occurs when the train is somewhat distant. Colour is not that obvious at that distance, so it very much depends on how fast the train is moving. It would not be a disincentive, and it might be a positive but, again, it would be difficult to judge how positive. My recollection of the trains that I have seen is that, apart from the steam train, the front end of the train was pretty conspicuous in colour.

Mr GIBBONS—What about some sort of warning device? I know that across the whole rail system there are procedures for trains to sound a warning alarm as they approach. Could that be tightened up so that there was more than one alarm sounded at a given distance on an approach to a crossing? That could be an active thing too: once the train crosses a certain section of track, these alarms automatically kick in until the train has passed the crossing.

Mr Filor—If you are talking about alarms actually on a crossing, that would turn them into active, rather than passive, crossings. There are figures quoted in Mr Cairney's report, which the committee will obviously look at. Going back to the train sounding signals: they have all done so, and they were all heard by eyewitnesses distant from the train. Again, it comes to issues such

as whether the car radio is on or the lorry is changing gears. It is the ambient noise all around the drivers. It also comes back to the mindset of the person. We are fairly confident that people have, in fact, heard the signals but they have just not registered. It is one of those psychological things which are a problem. I am not sure if that answered your question.

Mr GIBBONS—There probably is no answer.

Mr McARTHUR—I have a couple of technical questions. How far away is the train when the warning lights start? Has there been any real work done on when the warning lights start?

Mr Filor—I would need to take that on notice to provide you with the detail, but the answer is: yes, it is very carefully calculated on the speeds of trains over sections of track. There is a standard, which I am afraid I cannot pluck out of mind at the moment but which we can provide for you, which is based on an American standard which provides how many seconds before—this would be on an active crossing, of course—the train arrives that the signals at an active crossing are activated and, if there are booms, how soon afterwards they come down. In fact, in the Salisbury report that is gone into quite carefully. But the answer is: yes, there is, and I can give you that detail if you wish.

Mr McARTHUR—It has been suggested that the signals are fail-safe—that when the electrical current is activated the signal will always work. Is that right?

Mr Filor—I always hesitate when it says 'fail-safe'. I know of one situation where it did not work, but it was a fairly unusual situation. They are designed to be fail-safe. I think there was one incident late last year at the crossing just before Salisbury where the system did not work as it should have done.

Mr McARTHUR—And that is unusual?

Mr Filor—Yes, it is.

Mr McARTHUR—Traffic signals are regarded as 99 per cent active, as I understand it.

Mr Filor—Yes.

Mr McARTHUR—My final question is: in view of this figure you have here, that 87 per cent of collisions are front on, why do you think—just as a personal observation—there is so much discussion in the community that people hit trains on the side and you need this elimination? I have been hearing this argument from farm organisations for 25 years. They seem to be obsessed with that argument, yet your figures suggest most collisions are really front on.

Mr Filor—I have had some phone calls, largely from lorry drivers and other large-vehicle drivers, including farm vehicle drivers, but not from car drivers. There may be a number of issues. One is that the large vehicles—the freight vehicles—may be travelling more at night, particularly on the long-distance hauls. Regarding farm vehicles—and I have to be careful what I say here—it is not that unusual for farmers to make their own unofficial crossings across railway lines to get to their properties. I wonder whether or not, at those sorts of crossings, farmers have had a fright when they have suddenly realised that the black mass in front of them is not empty

space but a train. I have had some phone calls about that sort of issue, so it is possible that a lot of the anecdotal information I have is based on close calls or near misses, rather than on actual events.

Ms O'BYRNE—The thing that seems to be coming through most strongly is that we are talking about daytime crashes in which people know the road and know where the crossing is, but do not see it as a risk anymore or as something that they really need to pay attention to. They may slow down or not slow down; they know where it is. Where do you think our focus should be? Obviously there should be some level of driver education or driver reinforcement. For instance, we now have ads such as 'Take off five and stay alive'—if you drop your speed by five kilometres, you have a far better chance of stopping. Is there an area or focus for driver education that you think is achievable, or do you think that, given the incidence of these accidents, people might not invest in such a thing?

Mr Filor—Certainly in the Salisbury case that was put to us quite strongly, and we made a recommendation about the training of drivers. The other thing that struck me there was drivers' complete unawareness of railway crossing rules. As I understand it, in driver training and driver tests railway level crossings are not actively tested and there is only a very cursory discussion about them. Maybe that would be a fruitful area. The problem with all these things is that you get a peak and then it drops off again, so it is a question of how you maintain the level of awareness. At Aloomba, the road that it all happened on was actually named after the driver's family. It was so local and so familiar to the driver; I am not sure what would have triggered some greater awareness.

Ms O'BYRNE—I go over rail crossings in my electorate all the time, and I am sure that I do not physically stop.

CHAIR—But you do not have a lot of trains in Tasmania.

Mr Filor—That is another issue.

Ms O'BYRNE—That is part of the complacency issue; you do not expect to see a train. If you are not expecting to see a train, you do not implement the proper safety things. And they are all passive crossings.

Mr SECKER—You still use steam engines down there, don't you?

Ms O'BYRNE—We do, and they are lovely.

Ms LEY—Mr Filor, I wonder if any research has been done or if you have a view on the environment around the level crossings. The slides we saw when the Western Australians came across indicated that, if you are driving a car, there are a lot of distractions and it is difficult to get a clear picture. As we go over a railway crossing we say, 'I can see that way and I can see the other way, and it is okay.' But you need to peer around the corner. We see the same things on roads, where governments that think environmental concerns outweigh safety factors will not remove trees from the buffer zone of five metres along the side of the road. I think that is something that could be achieved quite safely and inexpensively. I did not see anything about it in the report. Is it not a factor, in your view?

Mr Filor—It certainly can be. There is a standard and there is a committee that has recently been formed which will be looking at these sorts of issues. Queensland have in fact led the way. I hope I am not going to upset any of the other states, but certainly when I was looking at the Aloomba accident I noted that Queensland have a risk matrix for level crossings, and it is based those sorts of visibility factors. They have basic standards of visibility required for each way. Another issue is the angle of the crossing. In the case of the Aloomba crossing, the road was parallel to the railway track and very close to it, so when cars stopped at the stop line they would do so at quite an angle, hence the way they had to look to see back down the track was at a far greater angle than the standard actually allowed for. So there are all those sorts of issues which the committee—and I am afraid the name escapes me at the moment—

CHAIR—I also think there is a parallel construction of this in the road system. I can think of one in my own electorate at a place called Childers. We have a huge avenue of beautiful leopard trees. Obviously no-one wants to chop them down, but they go up to a pedestrian crossing right in the middle of the street. So about 100 metres back they have those flashing amber lights that go up-down, up-down. I think at some of the crossings in Sydney they have a traffic light symbol with a yellow flashing light in the middle telling you that you are coming up on a set of traffic lights. So if you have a level crossing where the lines of sight are obscured by trees that perhaps should not be knocked down, but you do not want to damage the environment, it is only a matter of bringing warning lights forward another 100 to 150 metres.

Mr Filor—But that would then be an active crossing, not a passive crossing.

CHAIR—Of course.

Mr Filor—The major issue here in my mind is the passive crossing.

Mr SECKER—Not many of them are on active crossings.

Mr Filor—No. It is the passive crossing issue. But, again, this recommended standard which is there—and I think most states have adopted it or are certainly looking at it—does look at angles of visibility and things that may obscure. Up in the cane fields, how far the cane encroaches towards the railway line is quite an issue, and, again, that is addressed in these recommendations. The standards and recommendations are out there, and to my mind—and this is a personal view—we are again coming back to constant driver awareness of risk. In the Aloomba case, the train was running about an hour late, so we cannot know whether the driver thought the train had already gone through or whether they even thought about the train at all.

Mr ANDREN—I was interested when you mentioned the passive crossings into properties and that some are constructed by the farmers themselves. Having a look at these things in the central west of New South Wales over about 30 years in the media, I would say that, on the Sydney-Dubbo line, given the speed at which the XPT travels over carriageway that was built in the 1800s to carry steam trains, nearly 80 per cent of accidents have involved the XPT over the last 25 years. Six out of 10 of those accidents, and quite a few fatalities, have been orchardists going into their orchard or farmers going into a field via little private crossings over what is a super highway for trains. Has there been any thought given to the elimination of these private crossings and how it could be done? I know it is a huge issue. You almost need a road parallel to the railway line which services all the orchards and farms and which has one common, properly

marked crossing. It would be interesting to have a look at the XPT accident rate from Lithgow to Dubbo over the last 25 years and analyse that, because I think you would find that a lot of those accidents are on those little farm crossings.

The other thing was the signs with the cute steam trains, which someone mentioned. It always intrigued me when they started putting a sign of a little steam train on passive crossings. I can imagine that there are drivers out there now who would not know what the bloody hell that symbol meant. I think the effective signs in high accident rate areas are often those depicting two vehicles being crunched together, and I wonder whether something more dramatic like that at a passive crossing might be useful.

Mr Filor—That last one I had not thought of, I must admit. I do agree with you that that would be something which perhaps Standards Australia should take up. One of the comments I heard when I started doing rail investigations was that the signage for trains suggests that the train industry is back in the dark ages when, in fact, there is pretty sophisticated and modern technology in place with their engines, their locomotives and all the systems they have. So I do not think you will get any resistance from the rail industry to update the signs. The crossing issue is one which I know, from talking to train operators, they are seriously worried about. They are unofficial and—I hesitate to use the word 'illegal', but they probably are—and hence how do you control that sort of activity?

Mr ANDREN—A lot of these are crossings. They have got the cross thing on them, but the drivers become somewhat unaware. A lot of the crossings climb up from the road up over the railway line and down into the property. They are an accident waiting to happen, every one of them—

CHAIR—You are a sitting duck, aren't you, right on the rail.

Mr ANDREN—It is a danger for not only the blase property owner but particularly for visitors. Given that we now have this traffic scooting along at 120 kilometres an hour through the countryside, I just do not know how you would do it. Some crossings go under the line, but there would be enormous engineering problems with that. It is a real worry.

Mr Filor—Certainly, looking at the Aloomba accident, there were many of those leading up to both sides of the line.

Mr SCHULTZ—It is a very strong social issue, too. The New South Wales state government has recently tried to close a number of private rail crossings in areas where a lot of freight trains used to carry wheat. In those areas there was an enormous community reaction to it because it is the only access point for a lot of people.

CHAIR—Though the research says that 77 per cent of those are flat.

Mr ANDREN—One other point was that that little steam engine has only appeared in the last eight or nine years as a symbol. It is not as if it has been there for 100 years, and I just wonder how appropriate it is.

Mr Filor—I know individuals within the rail industry say it is totally inappropriate.

Mr McARTHUR—He obviously does not watch Thomas the Tank Engine!

Mr ANDREN—It is probably all right in Tassie!

CHAIR—Mr Haase has some questions.

Mr HAASE—It is good of you to spend your time with us, Mr Filor. I have some observations to make rather than questions to ask of you. It seems to me that we are working feverishly here to come up with solutions that, according to your evidence, will never work. It strikes me that all of the stats indicate lack of concentration: if you had lights flashing and sirens blaring, people who are elsewhere in their mind, as you say, would still get themselves into strife. Western Australia has been labelled as the nanny state because of some of the measures introduced to protect people from themselves. I heard my colleague Mr Andren suggest that we might shut down some railway crossings and prevent people from illegally accessing their properties. I think the pain suffered by the majority has got to be taken into consideration and I do not suspect that your investigations weigh up those social issues. I wonder if you have any comment about that. Should the majority be restricted, either by activity or by being forced to contribute indirectly to the cost of protecting that minority group from themselves and resulting in it being ineffective anyhow? Do you have a comment?

Mr Filor—I am not sure that I do. To me, the whole issue here is about risk assessment and the amount of resources we are prepared to spend on addressing a risk, which is quantifiable, and comparing that to how we might spend our money elsewhere. I am not sure that answers your question. We have to look at this in terms of the actual risk to the public as a whole.

Mr HAASE—You appear to have reservations.

Mr Filor—Yes, probably.

Mr HAASE—The chairman asked a question about reflective tape. You did not elaborate a great deal. I have thought about it and I have a concern that reflective tape—in fact, all reflective material—needs to be kept clean to be effective.

Mr Filor—Yes.

CHAIR—We have red and white reflective tape, for example, along the sides of ambulances; we have red and yellow along the sides of fire engines and bush fire brigades.

Mr ANDREN—Yes, but they are wiped and washed—

Mr HAASE—How often is it cleaned? Practically, how often could you clean a train? I wonder if your research indicates any activity—

CHAIR—Passenger trains go through cleaning machines.

Mr ANDREN—Coal hoppers are notorious for not being cleaned.

Mr HAASE—I have not detailed the statistics, but I suspect that side-on passive level crossing accidents are rural. You do not identify the trains but I would suggest that they are monotrains—single carriage style trains—that carry coal, wheat or iron ore, and every carriage is the same. They work in a dusty environment and they are all the colour of the environment. In my own iron ore country, that is certainly the case. Those trains cannot be seen at night and often cannot be seen in the daytime. You may be on a gravel road, with a lot of red dust around, looking at a red train—everything is red—and you might have the sun in a bad position. In those practical situations, would reflective tape be effective? How often would it have to be cleaned et cetera? Is that something you have researched?

Mr Filor—I have not researched it and I am not aware of any research. If there is an inexpensive way of reducing risk then that might be a sensible thing to do because, although it might not work on some trains, it might work on the train I am about to hit. There is that sort of formulation for it. The other thing is that it is a recommendation for rolling stock on the defined interstate network. The Australian Railway Association Inc.—which is the former ARA—has set up a code management company. The idea, as I understand it, is that this should become a national standard. That national standard calls for reflectors to be on the sides of trains. Whether or not they are effective in all cases I do not know.

CHAIR—Could you give us an extract of that?

Mr Filor—Yes, by all means.

Mr HAASE—Further, could you illuminate now on whether there is anything in that proposed standard that speaks of the efficacy of such reflective tape, the testing of it, the routine cleaning of it or the inspection of it?

Mr Filor—The testing, I imagine, would be to an Australian standard. Anything put on here would be to a set standard. The testing would be in line with existing standards.

Mr HAASE—You are inferring that that is when they are new—at the point of installation.

Mr Filor—Yes, sure.

Mr HAASE—I am referring to occasional testing of its reflectability in practice.

Mr Filor—Yes, there is. Under ‘Maintenance’ it says:

The presence, integrity and light reflective properties of reflectors are critical to their function. Accordingly, the cleaning of reflectors, the checking of their attachments to the vehicles and the replacement of damaged or missing reflectors should be included as a routine task in all scheduled and corrective maintenance functions ...

and so on. The rail industry, although sometimes we find lax or missing parts in maintenance things, is still a very sophisticated and modern industry which, by and large, has most of these maintenance issues at least in operational standards. Whether or not they follow them is another issue.

CHAIR—We will probably be able to test that on the sugar guys, because they have had reflective stuff for some time. Mr Filor, sadly we are losing our quorum because we have got meetings coming up at 10.30, so I wanted to thank you for your kindness in coming today and for giving evidence before the committee. On that note, I close this informal inquiry and briefing and close today's meeting.

Committee adjourned at 10.26 a.m.